FINAL REPORT

NASA GRANT NAG 5-2973

HOT PLASMA IN THE SUPERGIANT SHELL LMC-2

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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The NASA grant NAG 5-2973 supported the ASCA project: "Hot Plasma in the Supergiant Shell LMC-2"

A 45 ksec ASCA observation of the supergiant shell LMC-2 was made in August 1995. The data tape arrived in October 1995. The data were analyzed by the graduate student Sean Points and Dr. Eugene Magnier. The results will constitute a part of Sean Points' thesis.

The supergiant shell LMC-2 is unfortunately close to the brightest X-ray source in the Large Magellanic Cloud (LMC), LMC X-1. The scattered light from LMC X-1 has hampered the analysis of LMC-2, which emits at a much fainter level. A lot of time has been spent on locating the scattered X-rays and to minimize the contamination by the scattered LMC X-1 photons.

At present, the ASCA SIS spectra of LMC-2 have been extracted. These spectra are combined with the ROSAT PSPC spectra for joint spectral fits. The spectral analysis has been completed. The results are being written up in a paper to be submitted to the Astrophysical Journal. We expect the paper be completed before the end of 1997.